

# Innovation Alley

compiled by Fastener World

## Bülte Launches a New Range of Adjustable Feet: The "SF" Range

The range of levelling/adjustable feet has recently been extended with the "adjustable feet SF" range. The product is composed of a round base (various diameters available) and a hexagon shaped base above the foot. These new adjustable feet have been introduced to the market in the beginning of February 2019. This new range of adjustable feet is fully in Nylon, both the threaded part and the feet, contrary to the levelling feet usually available on the market that are more of a mix between metal and plastic.

In comparison with the metal-plastic combined products, Nylon offers various advantages; it is lighter, cheaper, and easier to recycle. It does not conduct electricity and is also not subject to corrosion. Polyamide thus allows the use of our "adjustable feet SF" in areas subject to corrosion which, for reasons of hygiene or for specific regulations, require materials resistant to it.

The hex end in the base allows fastening with a spanner. The nylon base, available in 4 different diameters, provides a smooth non-abrasive surface that protects floors. The adjustable feet then allows adjustment under load. This item is ideal for spanner height adjustable when the product is in application. The adjustable feet with hex end are an excellent solution for the levelling and height adjustment of a piece of

furniture, machinery or general appliance. The hexagon which can be found at the top of the thread can be used for adjusting the height of the feet from above the foot, without having to remove it from the application they are attached to. They are easy to install without specific tools and make sure your work surfaces are both even and secure.

In terms of design, the standard colour of the "adjustable feet SF" is black nylon. But as Polyamide can be colored as one wishes, according to the RAL chart, the "adjustable feet SF" range will be in line with every kind of industrial application, whatever their color might be.



## DEWALT® Debuts TOOL CONNECT™ 20V MAX\* XR® 1/2" Mid-Range Impact Wrench

DEWALT adds to its growing line of 20V MAX\* tools with the XR® 1/2" Mid-Range Impact Wrench featuring the TOOL CONNECT™ system (DCF896). The TOOL CONNECT™ system allows for tool control through its PRECISION WRENCH™ and PRECISION TAP™ control features, as well as a variety of additional customizable settings within the TOOL CONNECT™ app.

The TOOL CONNECT™ 20V MAX\* XR® 1/2" Mid-Range Impact Wrench achieves 0-2000 RPM, 3100 impacts per minute, and a maximum torque of 330 ft.-lbs. in forward and 600 ft.-lbs. in reverse. At only 6.95" in length and 3.48 lbs. (tool only), it's a compact choice available in both Hog Ring and Detent Pin configurations. This wrench also features an efficient brushless motor, variable speed trigger, convenient belt clip, and bright LED for illuminating low-lit work areas.



## GRK Fasteners™ Introduces the Next Generation of Multi-Purpose Framing and Decking Fasteners

GRK Fasteners, known for offering "The Industry's Toughest Screws," has updated its GRK R4™ Multi-Purpose Framing and Decking Fasteners.

GRK redesigned the R4 to provide professionals increased

speed for improved productivity. It does so by addressing pros' top challenges. One such challenge is slow engagement, often "solved" by the common practice of using an impact driver and screw to stab the wood to avoid spinning while waiting for the fastener to engage.





"We heard from users that getting a screw started in wood was one of their biggest struggles," says GRK product manager, Nick Prazuch. "The new R4 has a Fast-bite tip that immediately starts in a surface, allowing pros to drive more screws in less time."

In addition to productivity-boosting features, the new GRK R4 fastener line was revamped with features designed to ensure better results, including:

- Fast-bite tip: Immediate start in wood. Eliminates the need for pre-drilling.
- Precision-fit star bit head: Reduces wobbling, which eliminates the need to hold the fastener as it goes in, allowing for faster, more confident driving, and makes working in tight spaces easier
- W-Cut™: Reduces installation torque for fast driving and ease of install
- Optimized thread length: Improves clamping force and drawing power for no gaps between boards and no rework.

## 60-Volt Cordless Nutrunner Optimizes High-Torque Fastening Applications

STANLEY Assembly Technologies, a brand of STANLEY Engineered Fastening, is extending its B-Series cordless tool line to include the B44L angle-lever cordless nutrunner. Thanks to its 60-volt DEWALT® FLEXVOLT™ battery, the B44L is the most powerful cordless nutrunner available to the assembly market.

For added convenience, the B44L can store data for up to 500 fastening cycles and two trace sequences. It also has a built-in



controller with wireless capability. This allows seamless integration with the plant's existing communications system.

The B44L is available in four models with speed ratings from 243 to 573 rpm and maximum torque ranges of 55 to 120 Nm. The ½" drive is also offered in square, double-ended and flush socket configurations.

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## TR Fastenings Showcases Range of Specially Engineered Security Components

International specialist in the design, engineering, manufacture and distribution of high quality industrial and Cat. C fasteners, TR Fastenings (TR), is proud to be able to support a wide variety of sectors with its range of specialist security fasteners, engineered to prevent theft, deter vandalism and boost health and safety.

The security fastener range complements TR's wider catalogue of industrial fastenings and can be used alongside or instead of standard parts. The security fasteners have added features to ensure that the products and their enclosed components cannot be tampered with or become loose, causing damage or injury. They also ensure that the components within the enclosed structures cannot be removed, other than by a specially trained technician with bespoke tools.

Design features of security fasteners include:

- (1) Unusual shapes to prevent tampering, requiring non-standard drives such as 2-hole pig-nosed fittings.
- (2) Tapered diameters, resistant to gripping devices.
- (3) Increased frictional resistance within the bolt, limiting rotation and making it more difficult for the part to be loosened.
- (4) Aesthetic features such as shear torques and smooth finishes mean that these fasteners can be ultra-secure whilst also looking good: an important consideration when used in high-end and luxury environments.



## Japan Lobtex Releases Hybrid Adjustable Angle Wrench X(90th Anniversary Model) Limited Number

Advanced function: "90th anniversary laser marking (PAT.)"

Advanced function: "G-LESS (loose grip prevention) mechanism" (PAT.)

The G-LESS mechanism minimizes any loosening in this direction, resulting in improved ease of use.

Advanced function: "X-DRIVE"

Thanks to the stress relief structure, the new "X-DRIVE" disperses more stress applied to the edges than the conventional tools. Thus,

the X-DRIVE can easily apply torque, enabling stable tightening and loosening work, without collapsing the edges.

Advanced function: B-Less (backlash-free) mechanism

The lower jaw rack is sandwiched by "Worm A" and "Worm B" to the point that there is no gapping.

Advanced function: RFH (Round formed handle)

The newly shaped (round) handle easily fits the hand.



## Japanese LOBTEX Rolls out Non-slipping Hexagonal Wrench Package Suited for Inclined Wrench Insertion

LOBTEX launched sales of BWM9S ball-end hexagonal wrenches that prevent slipping when they are inserted at an inclined angle. Ball-end hexagonal wrenches conveniently allow users to insert at an angle into the hexagonal bolt hole, but in a high-torque application they would easily slip off from the hole. Therefore, LOBTEX increased the area of contact with the bolt hole and came up with a wrench shape that prevents slipping.

Features:

(1) Special shape design: Preventing slipping for perpendicular, or 20-degree inclined wrench insertion.

(2) Best suited for fastening bolts in a tight or innermost area.

(3) The red holder of the wrenches is foldable, allowing convenient fetching and storage.





## New Simpson Strong-Tie® SDWS Timber SS Screw Provides Durability and Efficiency



Simpson Strong-Tie, the leader in engineered structural connectors and building solutions, announced the official launch of the Strong-Drive SDWS Timber SS Type 316 stainless-steel structural screw, a premium solution for construction and repair of coastal piers, boardwalks, docks and other projects that require structural fastening in extreme saltwater environments.

The SDWS Timber SS prototype was specified and successfully field-tested as the primary pier-board fastener for the \$8.7 million modernization of the Pismo Beach Pier. At 1,200 feet long, the Pismo Pier is the 18th longest in California and had several sections that had not been replaced since the pier was constructed in 1928.

To ensure that the Pismo Pier project could meet budget and scheduling requirements while providing the structural durability to last many more

decades, Morro Bay, CA-based Shoreline Engineering turned to Simpson Strong-Tie for fasteners that were corrosion resistant and easy to install.

Available in 3", 4", 5", 6", 8", 10" and 12" lengths, the SDWS Timber SS features a patented SawTooth™ point to eliminate the predrilling and counterboring required by lag screws while providing greater load ratings than spikes without nail-pops and their associated tripping hazards.

The SDWS Timber SS 316 stainless-steel structural screw complements the Strong-Drive® family of fasteners and is anticipated to provide a broad range of fastener solutions for coastal pier, boardwalk and ledger applications where a flat, flush washer head is advantageous.

## Chicago Pneumatic Releases New CP7748 Impact Wrench

Chicago Pneumatic has introduced a new powerful ½" impact wrench for vehicle service specialists. Built upon the heritage of the successful previous model, the CP7748 has been designed to offer operators unparalleled levels of power, comfort and durability and is suitable for workshop or roadside assistance tasks such as tire changing.

Weighing in at just 4.4 lbs (2 kg) and delivering 960 ft. lbs (1,300 Nm) of power in reverse, the CP7748 impact wrench provides a high power-to-weight ratio.

At the heart of the design is an innovative forward/reverse and power control set up based on a ring system, which is more ergonomic than controls on the back of the tool. Users can either change direction by pushing buttons easily with one hand, or simply by turning the ring from anywhere around the tool. The CP7748 also offers two different settings in the forward position (40 percent of maximum power and full power) and a full power setting in reverse. This ring system facilitates the use of the CP7748 in



Clinching Fastener Specialist

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### Main Products:

- ▶ Self-Clinching Studs, Nuts, Standoffs
- ▶ Rivet Bushes
- ▶ Welding Studs and Standoffs
- ▶ Brass Inserts for Plastics
- ▶ Cage Nuts
- ▶ Rivet Nuts
- ▶ Customized Parts via Cold Forging, CNC, Turned

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### Strengths:

- ✓ Producer in China
- ✓ ISO 9001:2015 and IATF16949 certified
- ✓ PPAP package and MSDS for automotive industry
- ✓ Automatic Optical Sorting 100%
- ✓ Full range for sheet metal fasteners and 20 million stocks

tight places without having to remove the tool to change direction.

The CP7748 can comfortably be used in confined spaces since it is compact. The tool measures only 6.89 inches (175 mm) in length.

Chicago Pneumatic has designed the new impact wrench with durability in mind. Featuring a hard chromium aluminum cylinder that surrounds the motor and twin hammer mechanism, the CP7748 wrench delivers optimum performance in the toughest operating environment.

The CP7748 is also available in 2" anvil.



## Japanese KTC Works with Hitachi on AR-Enabled Bolt Fastening System

KTC worked with Hitachi and YAMAGATA and developed a bolt fastening system that shows the fastening position of bolts on a headmount display via AR technology. With this system, operators will be able to check the meter and make sure they are fastening the bolt with rule-compliant force. They can also use the system for digital management. The system will be put into tests and is expected to make train production more efficient.

**HITACHI**  
Inspire the Next

## Japanese Nitto Seiko Develops Collar-less Self-tapping Screws

In recent years the Japanese automotive industry started a boom of lightweighting and has increasing demand for automotive self-drilling screws. Of all the types of self-drilling screws, the ones used for resin do not trigger creep (the tendency of a solid material to move slowly or deform permanently under the influence of mechanical stresses) when exposed in high temperatures. For creep prevention, usually a less heat-deformable iron collar and an insert nut are embedded into the resin which then will be fastened. However, this method will increase the use of components, processes and cost, which is against the principles of lightweighting.

Nitto Seiko has successfully developed self-drilling screws for resin that are free from the use of collars and insert nuts. Their axial portion has two different kinds of threads with identical thread pitch. Through the threads, the screws self-tap into the



material to be fastened and the mating material. This mechanism prevents wobble and creep in the case of axial force reduction and creep. The screws launched sales since February 1 with a sales target of 1 million pieces to the automotive and household appliance industries by 2020.

## Japanese TOP Kogyo Company Rolls out "Head-Swing Locking Ratchet Wrench"

TOP Kogyo developed the "Head-Swing Locking Ratchet Wrench" for fastening nuts. The ratchet part can rotate 180 degrees and locks up at every 22.5 degrees. The ratchet part can fasten nuts even when it is bent and therefore is perfect for fastening innermost nuts that are difficult to reach.

The circumference of the ratchet part is colored to differentiate the front side from the back side. The front side has an engraved



arrow sign. Face the yellow side upwards and turn the wrench in the direction of the arrow sign, you will fasten up the nut while avoiding erroneous operations.

The wrench comes in 10 types, including models from 8 mm to 24 mm diameters, and is supplied to the machinery, construction and automotive industries.

## Japanese Kobayashi Mekki Develops Continuous Visual Inspection Device for Electroplating Inspection

The continuous visual inspection device developed by Kobayashi Mekki has an embedded artificial intelligence software to automatically recognize poorly electroplated and non-plated products. The device no longer has to reconfigure

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every check item for inspection targets of different sizes and shapes, thus realizing automated inspection procedure. With the device, the company will first achieve full inspection of product sizes below and including M2, and then expand the size range and increase inspection items in the future. □